



Microsoft

Exam Questions DP-500

Designing and Implementing Enterprise-Scale Analytics Solutions Using Microsoft Azure and Microsoft Power BI

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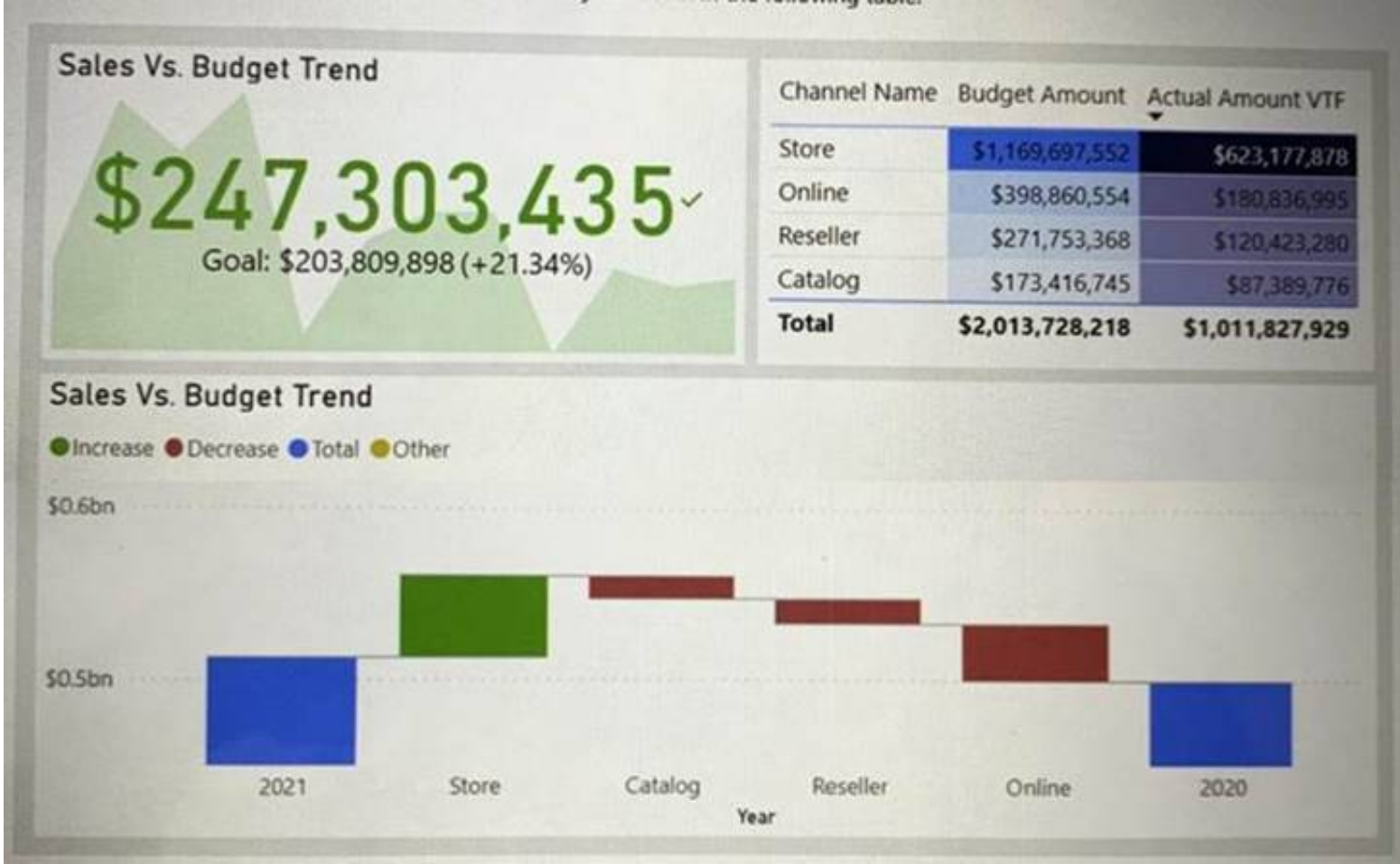
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NEW QUESTION 1

- (Exam Topic 3)

You are configuring a Power BI report for accessibility as shown in the following table.



You need to change the default colors of all three visuals to make the report more accessible to users who have color vision deficiency. Which two settings should you configure in the Customize theme window? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

- A. Theme colors
- B. Sentiment colors
- C. Divergent colors
- D. First-level elements colors

Answer: AB

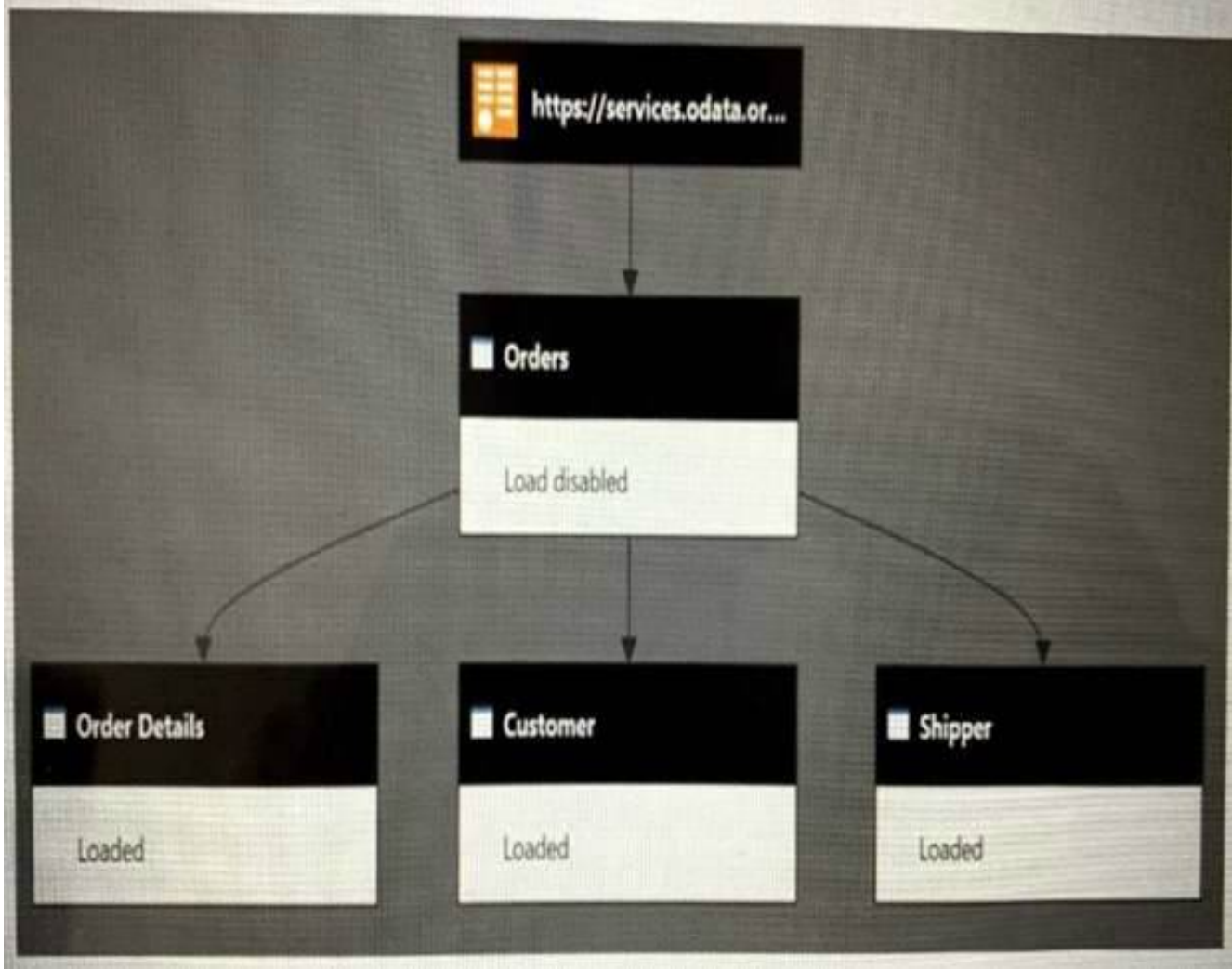
Explanation:

Reference: <https://docs.microsoft.com/en-us/power-bi/create-reports/desktop-report-themes>

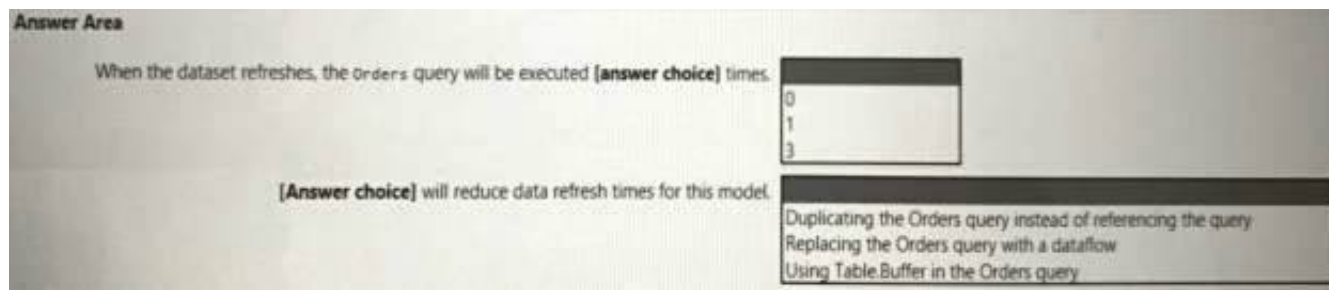
NEW QUESTION 2

- (Exam Topic 3)

You have a Power BI dataset that has the query dependencies shown in the following exhibit.



Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic. NOTE: Each correct selection is worth one point.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Box 1: 3

Power Query doesn't start at the first query and work down, it starts at the bottom (last) query and works backwards, so 3 tables from 1 will cause it to process that first source table 3 times.

Box 2: Using Table.Buffer in the Orders query

Table.Buffer buffers a table in memory, isolating it from external changes during evaluation. Buffering is shallow. It forces the evaluation of any scalar cell values, but leaves non-scalar values (records, lists, tables, and so on) as-is.

Note that using this function might or might not make your queries run faster. In some cases, it can make your queries run more slowly due to the added cost of reading all the data and storing it in memory, as well as the fact that buffering prevents downstream folding.

Example 1

Load all the rows of a SQL table into memory, so that any downstream operations will no longer be able to query the SQL server.

Usage let

Source = Sql.Database("SomeSQLServer", "MyDb"), MyTable = Source[Item="MyTable"][Data], BufferMyTable = Table.Buffer(dbo_MyTable)

in BufferMyTable Output

Reference: <https://radacad.com/performance-tip-for-power-bi-enable-load-sucks-memory-up> <https://docs.microsoft.com/en-us/powerquery-m/table-buffer>

NEW QUESTION 3

- (Exam Topic 3)

You have a deployment pipeline for a Power BI workspace. The workspace contains two datasets that use import storage mode.

A database administrator reports a drastic increase in the number of queries sent from the Power BI service to an Azure SQL database since the creation of the deployment pipeline.

An investigation into the issue identifies the following:

- One of the datasets is larger than 1 GB and has a fact table that contains more than 500 million rows.
- When publishing dataset changes to development, test, or production pipelines, a refresh is triggered against the entire dataset.

You need to recommend a solution to reduce the size of the queries sent to the database when the dataset changes are published to development, test, or production.

What should you recommend?

- A. From Capacity settings in the Power BI Admin portal, reduce the Max Intermediate Row Set Count setting.
- B. Configure the dataset to use a composite model that has a DirectQuery connection to the fact table.
- C. Enable the large dataset storage format for workspace.
- D. From Capacity settings in the Power BI Admin portal, increase the Max Intermediate Row Set Count setting.

Answer: B

Explanation:

A composite model in Power BI means part of your model can be a DirectQuery connection to a data source (for example, SQL Server database), and another part as Import Data (for example, an Excel file). Previously, when you used DirectQuery, you couldn't even add another data source into the model.

DirectQuery and Import Data have different advantages.

Now the Composite Model combines the good things of both Import and DirectQuery into one model. Using the Composite Model, you can work with big data tables using DirectQuery, and still import smaller tables using Import Data.

Reference:

<https://radacad.com/composite-model-directquery-and-import-data-combined-evolution-begins-in-power-bi>

<https://powerbi.microsoft.com/en-us/blog/five-new-power-bi-premium-capacity-settings-is-available-on-the-por>

NEW QUESTION 4

- (Exam Topic 3)

You use the Vertipaq Analyzer to analyze tables in a dataset as shown in the Tables exhibit. (Click the Tables tab.)

Vertipaq Analyzer Metrics						
Tables Columns Relationships Partitions Summary						
Name	Cardinality	Table Size	Col Size	Data	Dictionary	Hier Size
Plan	627,876	22,823,464	21,147,552	6,697,272	10,293,184	4,157,096
Forecast Amount	101,606	22,823,464	7,400,920	1,475,640	5,112,384	812,896
Budget Amount	101,596	22,823,464	7,400,024	1,475,640	5,111,568	812,816
Row ID	627,876	22,823,464	4,185,992	1,674,344	120	2,511,528
ProductKey	628	22,823,464	842,296	818,016	19,208	5,072
Sales	858,789	20,968,092	18,674,660	12,182,384	2,587,004	3,905,272
Row ID	858,789	20,968,092	5,725,408	2,290,112	120	3,435,176
SalesAmount	36,554	20,968,092	2,960,560	1,245,904	1,422,176	292,480
TotalCost	9,711	20,968,092	1,924,272	1,238,488	608,056	77,728
Sales ID	2,000	20,968,092	1,431,192	1,374,064	41,080	16,048
Date	1,095	20,968,092	1,428,968	1,373,856	46,312	8,800

The table relationships for the dataset are shown in the Relationships exhibit. (Click the Relationships tab.)

VertiPaq Analyzer Metrics					
Tables Columns Relationships Partitions Summary					
Table / Relationship	Size	Max From Cardinality	Max To Cardinality	1:M Ratio %	Missing Keys
Plan	1,675,912	627,876	858,789	136.78%	7
Plan[ProductKey] ↔ 1 Product[ProductKey]	848	628	629	0.10%	0
Plan[StoreKey] ↔ 1 Store[Store Key]	360	306	299	0.05%	7
Plan[GeographyKey] ↔ 1 Geography[GeographyKey]	312	263	263	0.04%	0
Plan[DateKey] ↔ 1 Month & Year Distinct[Date]	32	36	36	0.01%	0
Sales	2,293,432	858,789	1,095	0.13%	858,793
Sales[Date] ↔ 1 Calendar[Date]	1,760	1,095	1,095	0.13%	0
Sales[GeographyKey] ↔ 1 Geography[GeographyKey]	312	263	263	0.03%	0
Sales[PromotionKey] ↔ 1 Promotion[Promotion Key]	24	28	28	0.00%	0
Sales[channelKey] ↔ 1 Channel[ChannelKey]	8	4	4	0.00%	0
Sales[Row ID] ↔ 1 Plan Header Details[Row ID]	0	858,789	3	0.00%	858,786

You need to reduce the model size by eliminating invalid relationships. Which column should you remove?

- A. Sales[Sales Amount]
- B. Sales[RowID]
- C. Sales[Sales ID]
- D. Plan[RowID]

Answer: B

Explanation:

Sales[Row ID] has 858,786 missing keys and 858,789 Max From Cardinality.

Note: The Max From Cardinality column defines the cost of the relationship which is the amount of time DAX needs to transfer the filters from the dimensions table to the fact table.

Reference: <https://blog.enterprisedna.co/vertipaq-analyzer-tutorial-relationships-referential-integrity/>

NEW QUESTION 5

- (Exam Topic 3)

You use Vertipaq Analyzer to analyze a model.

The Relationships tab contains the results shown in the following exhibit.

IsRowNumber Cardinality (Filter)	FALSE All	
Row Labels	Relationship Type	Max From Cardinality Max to Cardinality 1:M Ratio % Missing Keys Invalid Rows Relationships Size Bid. Filters MMR
'Date' [Date] ==<-1 'LocalDateTable_39c22ddb-27f3-4e6c-8a44-a3380850fcb4' [Date]	M:1	84 2,557 3044.05% 0 0 4,056
Fact	M:1	90 327 0.69% 22 184
'Fact' [BU Key] ==<-1 'BU' [BU Key]	M:1	26 164 0.34% 0 0 32
'Fact' [Customer Key] ==<-1 'Customer' [Customer]	M:1	90 327 0.69% 21 1,804 112
'Fact' [Product Key] ==<-1 'Product' [Product Key]	M:1	7 6 0.01% 1 6,577 8
'Fact' [Scenario Key] ==<-1 'Scenario' [Scenario Key]	M:1	2 2 0.00% 0 0 8
'Fact' [YearPeriod] ==<-1 'Date' [YearPeriod]	M:1	16 84 0.18% 0 0 24
Grand Total	M:1	90 2,557 3044.05% 27 4,320

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Answer Area

The **[answer choice]** table is missing records needed by the Fact table.

▼

BU Key
 Customer
 Date
 Scenario

There are **[answer choice]** blank values created by missing dimensional relationships.

▼

22
 1,804
 6,577
 8,381

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Box 1: Customer

There are 1804 invalid rows (records) in the Customer table. Box 2: 22

There are 22 missing keys.

Note: VertiPaq Analyzer in DAX Studio is useful in identifying referential integrity violations which slow

down your DAX codes. It helps you determine which table or column needs to be optimized and improved. Reference: <https://blog.enterprisedna.co/vertipaq-analyzer-tutorial-relationships-referential-integrity/>

NEW QUESTION 6

- (Exam Topic 3)

You have a Power BI tenant.

You plan to register the tenant in an Azure Purview account.

You need to ensure that you can scan the tenant by using Azure Purview.

Which two actions should you perform? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

- A. From the Microsoft 365 admin center, create a Microsoft 365 group.
- B. From the Power BI Admin center, set Allow live connections to Enabled.
- C. From the Power BI Admin center, set Allow service principals to use read-only Power BI admin APIs to Enabled.
- D. From the Azure Active Directory admin center, create a security group.
- E. From the Power BI Admin center, set Share content with external users to Enabled.

Answer: CD

Explanation:

Scan same-tenant Power BI using Azure IR and Managed Identity in public network. Make sure Power BI and Microsoft Purview accounts are in the same tenant.

Make sure Power BI tenant Id is entered correctly during the registration.

From Azure portal, validate if Microsoft Purview account Network is set to public access.

From Power BI tenant Admin Portal, make sure Power BI tenant is configured to allow public network.

(D) In Azure Active Directory tenant, create a security group.

From Azure Active Directory tenant, make sure Microsoft Purview account MSI is member of the new security group.

On the Power BI Tenant Admin portal, validate if Allow service principals to use read-only Power BI admin APIs is enabled for the new security group.

Associate the security group with Power BI tenant Log into the Power BI admin portal.

Select the Tenant settings page.

(C) Select Admin API settings > Allow service principals to use read-only Power BI admin APIs (Preview). Select Specific security groups.

Select Admin API settings > Enhance admin APIs responses with detailed metadata > Enable the toggle to allow Microsoft Purview Data Map automatically discover the detailed metadata of Power BI datasets as part of its scans.

Reference: <https://docs.microsoft.com/en-us/azure/purview/register-scan-power-bi-tenant>

NEW QUESTION 7

- (Exam Topic 3)

You have a Power BI dataset. The dataset contains data that is updated frequently. You need to improve the performance of the dataset by using incremental refreshes.

Which four actions should you perform in sequence to enable the incremental refreshes? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions

Answer Area

Define the incremental refresh policy for the table.

Enable query caching.

Publish the model to the Power BI service.

Create RangeStart and RangeEnd parameters.

Use the Power BI REST API to post a message to /refreshes.

Apply a custom Date/Time filter to the data.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, text, application, chat or text message Description automatically generated

Step 1: Create RangeStart and RangeEnd parameters. Create parameters

In this task, use Power Query Editor to create RangeStart and RangeEnd parameters with default values. The default values apply only when filtering the data to be loaded into the model in Power BI Desktop. The values you enter should include only a small amount of the most recent data from your data source. When published to the service, these values are overridden by the incremental refresh policy.

Step 2: Apply a custom Date/Time filter to the data. Filter data

With RangeStart and RangeEnd parameters defined, apply a filter based on conditions in the RangeStart and RangeEnd parameters.

Before continuing with this task, verify your source table has a date column of Date/Time data type. Step 3: Define the incremental refresh policy for the table.

Define policy

After you've defined RangeStart and RangeEnd parameters, and filtered data based on those parameters, you define an incremental refresh policy. The policy is applied only after the model is published to the service and a manual or scheduled refresh operation is performed.

Step 4: Publish the model to the Power BI service. Save and publish to the service

When your RangeStart and RangeEnd parameters, filtering, and refresh policy settings are complete, be sure to save your model, and then publish to the service.

Reference: <https://docs.microsoft.com/en-us/power-bi/connect-data/incremental-refresh-configure>

NEW QUESTION 8

- (Exam Topic 3)

You have a Power BI report that contains the table shown in the following exhibit.

Store ID	Store	Returns
6	Leo	\$6,108
5	Fama	\$6,097
13	Contoso	\$5,214
11	Pomum	\$4,968
7	VanArsdel	\$4,964
10	Pirum	\$4,644
2	Aliqui	\$4,479
1	Abbas	\$4,070
8	Natura	\$3,376
14	Victoria	\$2,317
4	Salvus	\$2,296
12	Quibus	\$2,208
3	Barba	\$1,601
Total		\$52,342

The table contains conditional formatting that shows which stores are above, near, or below the monthly quota for returns. You need to ensure that the table is accessible to consumers of reports who have color vision deficiency. What should you do?

- A. Add alt text to explain the information that each color conveys.
- B. Move the conditional formatting icons to a tooltip report.
- C. Change the icons to use a different shape for each color.
- D. Remove the icons and use red, yellow, and green background colors instead.

Answer: A

Explanation:

Report accessibility checklist, All Visuals.

- * Ensure alt text is added to all non-decorative visuals on the page.
- * Avoid using color as the only means of conveying information. Use text or icons to supplement or replace the color.
- * Check that your report page works for users with color vision deficiency.
- * Etc.

Reference: <https://docs.microsoft.com/en-us/power-bi/create-reports/desktop-accessibility-creating-reports>

NEW QUESTION 9

- (Exam Topic 3)

You have an Azure Synapse Analytics serverless SQL pool.

You need to catalog the serverless SQL pool by using Azure Purview.

Which three actions should you perform? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

- A. Create a managed identity in Azure Active Directory (Azure AD).
- B. Assign the Storage Blob Data Reader role to the Azure Purview managed service identity (MSI) for the storage account associated to the Synapse Analytics workspace.
- C. Assign the Owner role to the Azure Purview managed service identity (MSI) for the Azure Purview resource group.
- D. Register a data source.
- E. Assign the Reader role to the Azure Purview managed service identity (MSI) for the Synapse Analytics workspace.

Answer: ABE

Explanation:

Authentication for enumerating serverless SQL database resources

There are three places you'll need to set authentication to allow Microsoft Purview to enumerate your serverless SQL database resources:

The Azure Synapse workspace The associated storage

The Azure Synapse serverless databases

The steps below will set permissions for all three. Azure Synapse workspace

In the Azure portal, go to the Azure Synapse workspace resource. On the left pane, select Access Control (IAM).

Select the Add button.

Set the Reader role and enter your Microsoft Purview account name, which represents its managed service identity (MSI).

Select Save to finish assigning the role

Azure Synapse Analytics serverless SQL pool catalog Purview Azure Purview managed service identity Storage account

In the Azure portal, go to the Resource group or Subscription that the storage account associated with the Azure Synapse workspace is in.

On the left pane, select Access Control (IAM). Select the Add button.

Set the Storage blob data reader role and enter your Microsoft Purview account name (which represents its MSI) in the Select box.

Select Save to finish assigning the role. Azure Synapse serverless database

Go to your Azure Synapse workspace and open the Synapse Studio. Select the Data tab on the left menu.

Select the ellipsis (...) next to one of your databases, and then start a new SQL script.

Add the Microsoft Purview account MSI (represented by the account name) on the serverless SQL databases. You do so by running the following command in your SQL script:

SQL

CREATE LOGIN [PurviewAccountName] FROM EXTERNAL PROVIDER;

Apply permissions to scan the contents of the workspace

You can set up authentication for an Azure Synapse source in either of two ways. Select your scenario below for steps to apply permissions.

Use a managed identity Use a service principal

Reference: <https://docs.microsoft.com/en-us/azure/purview/register-scan-synapse-workspace?tabs=MI>

NEW QUESTION 10

- (Exam Topic 3)

You have an Azure Synapse Analytics dedicated SQL pool.

You need to ensure that the SQL pool is scanned by Azure Purview. What should you do first?

- A. Register a data source.
- B. Search the data catalog.
- C. Create a data share connection.
- D. Create a data policy.

Answer: B

NEW QUESTION 10

- (Exam Topic 3)

You are using DAX Studio to analyze a slow-running report query. You need to identify inefficient join operations in the query. What should you review?

- A. the query statistics
- B. the query plan
- C. the query history
- D. the server timings

Answer: B

Explanation:

Open DAX Studio.

Paste the query there, enable Query Plan display and Server Timings, run your query (with clear cache), and then study the query plan for large row counts. Once the culprit is identified you can decide how to rewrite your DAX to make that part faster.

Reference: <https://community.powerbi.com/t5/Power-Query/DAX-Query-taking-longer-time/td-p/1171961> <https://www.sqlbi.com/wp-content/uploads/DAX-Query-Plans.pdf>

NEW QUESTION 14

- (Exam Topic 3)

You are using a Python notebook in an Apache Spark pool in Azure Synapse Analytics. You need to present the data distribution statistics from a DataFrame in a tabular view. Which method should you invoke on the DataFrame?

- A. freqItems
- B. corr
- C. summary
- D. rollup

Answer: B

Explanation:

pandas.DataFrame.corr computes pairwise correlation of columns, excluding NA/null values. Incorrect:

* freqItems pyspark.sql.DataFrame.freqItems

Finding frequent items for columns, possibly with false positives. Using the frequent element count algorithm described in <https://doi.org/10.1145/762471.762473>, proposed by Karp, Schenker, and Papadimitriou.'

* summary is used for index.

* There is no panda method for rollup. Rollup would not be correct anyway. Reference: <https://pandas.pydata.org/docs/reference/api/pandas.DataFrame.corr.html>

NEW QUESTION 15

- (Exam Topic 3)

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You are using an Azure Synapse Analytics serverless SQL pool to query a collection of Apache Parquet files by using automatic schema inference. The files contain more than 40 million rows of UTF-8-encoded business names, survey names, and participant counts. The database is configured to use the default collation.

The queries use open row set and infer the schema shown in the following table.

name	system_type_name	max_length
businessName	varchar(8000)	8000
surveyName	varchar(8000)	8000
participants	int	4

You need to recommend changes to the queries to reduce I/O reads and tempdb usage.

Solution: You recommend using openrowset with to explicitly specify the maximum length for businessName and surveyName.

Does this meet the goal?

- A. Yes
B. No

Answer: B

Explanation:

Instead use Solution: You recommend using OPENROWSET WITH to explicitly define the collation for businessName and surveyName as Latin1_General_100_BIN2_UTF8.

Query Parquet files using serverless SQL pool in Azure Synapse Analytics. Important

Ensure you are using a UTF-8 database collation (for example Latin1_General_100_BIN2_UTF8) because string values in PARQUET files are encoded using UTF-8 encoding. A mismatch between the text encoding in the PARQUET file and the collation may cause unexpected conversion errors. You can easily change the default collation of the current database using the following T-SQL statement: alter database current collate Latin1_General_100_BIN2_UTF8'.

Note: If you use the Latin1_General_100_BIN2_UTF8 collation you will get an additional performance boost compared to the other collations. The Latin1_General_100_BIN2_UTF8 collation is compatible with parquet string sorting rules. The SQL pool is able to eliminate some parts of the parquet files that will not contain data needed in the queries (file/column-segment pruning). If you use other collations, all data from the parquet files will be loaded into Synapse SQL and the filtering is happening within the SQL process. The Latin1_General_100_BIN2_UTF8 collation has additional performance optimization that works only for parquet and CosmosDB. The downside is that you lose fine-grained comparison rules like case insensitivity.

Reference: <https://docs.microsoft.com/en-us/azure/synapse-analytics/sql/query-parquet-files>

NEW QUESTION 17

- (Exam Topic 3)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a Power BI dataset named Dataset1.

In Dataset1, you currently have 50 measures that use the same time intelligence logic. You need to reduce the number of measures, while maintaining the current functionality. Solution: From Power BI Desktop, you group the measures in a display folder.

Does this meet the goal?

- A. Yes
B. No

Answer: B

Explanation:

Solution: From DAX Studio, you write a query that uses grouping sets.

A grouping is a set of discrete values that are used to group measure fields. Reference: <https://docs.microsoft.com/en-us/power-bi/developer/visuals/capabilities>

NEW QUESTION 22

- (Exam Topic 3)

You have five Power BI reports that contain R script data sources and R visuals.

You need to publish the reports to the Power BI service and configure a daily refresh of datasets. What should you include in the solution?

- A. a Power BI Embedded capacity
B. an on-premises data gateway (standard mode)
C. a workspace that connects to an Azure Data Lake Storage Gen2 account
D. an on-premises data gateway (personal mode)

Answer: D

Explanation:

To schedule refresh of your R visuals or dataset, enable scheduled refresh and install an on-premises data gateway (personal mode) on the computer containing the workbook and R.

Reference: <https://docs.microsoft.com/en-us/power-bi/connect-data/desktop-r-in-query-editor>

NEW QUESTION 23

- (Exam Topic 3)

You have a Power BI Premium capacity.

You need to increase the number of virtual cores associated to the capacity. Which role do you need?

- A. Power BI workspace admin
B. capacity admin
C. Power Platform admin
D. Power BI admin

Answer: D

Explanation:

Change capacity size

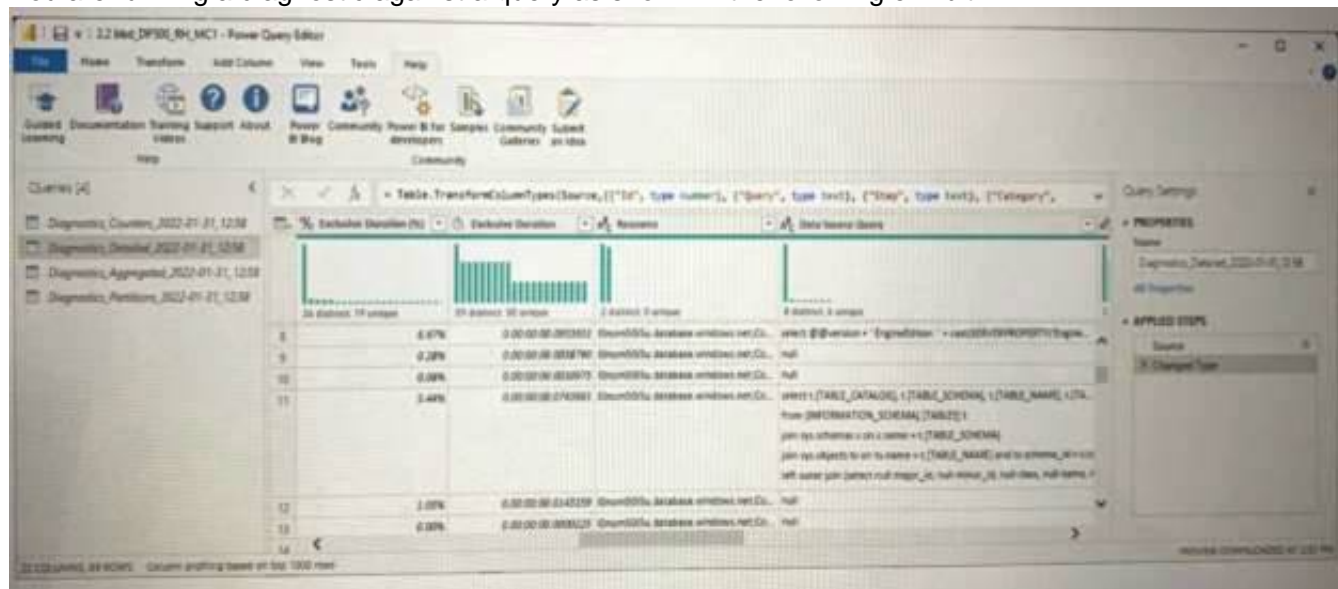
Power BI admins and global administrators can change Power BI Premium capacity. Capacity admins who are not a Power BI admin or global administrator don't have this option.

Reference: <https://docs.microsoft.com/en-us/power-bi/enterprise/service-admin-premium-manage>

NEW QUESTION 25

- (Exam Topic 3)

You are running a diagnostic against a query as shown in the following exhibit.



What can you identify from the diagnostics query?

- A. All the query steps are folding.
- B. Elevated permissions are being used to query records.
- C. The query is timing out.
- D. Some query steps are folding.

Answer: A

Explanation:

Understanding folding with Query Diagnostics

One of the most common reasons to use Query Diagnostics is to have a better understanding of what operations were 'pushed down' by Power Query to be performed by the back-end data source, which is also known as 'folding'. If we want to see what folded, we can look at what is the 'most specific' query, or queries, that get sent to the back-end data source. We can look at this for both ODATA and SQL.

Reference: <https://docs.microsoft.com/en-us/power-query/querydiagnosticsfolding>

NEW QUESTION 28

- (Exam Topic 3)

You have a Power BI tenant that contains 10 workspaces.

You need to create dataflows in three of the workspaces. The solution must ensure that data engineers can access the resulting data by using Azure Data Factory.

Which two actions should you perform? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point

- A. Associate the Power BI tenant to an Azure Data Lake Storage account.
- B. Add the managed identity for Data Factory as a member of the workspaces.
- C. Create and save the dataflows to an Azure Data Lake Storage account.
- D. Create and save the dataflows to the internal storage of Power BI

Answer: AC

Explanation:

Data used with Power BI is stored in internal storage provided by Power BI by default. With the integration of dataflows and Azure Data Lake Storage Gen 2 (ADLS Gen2), you can store your dataflows in your organization's Azure Data Lake Storage Gen2 account. This essentially allows you to "bring your own storage" to Power BI dataflows, and establish a connection at the tenant or workspace level.

Reference:

<https://docs.microsoft.com/en-us/power-bi/transform-model/dataflows/dataflows-azure-data-lake-storage-integra>

NEW QUESTION 31

- (Exam Topic 3)

You have a 2-GB Power BI dataset.

You need to ensure that you can redeploy the dataset by using Tabular Editor. The solution must minimize how long it will take to apply changes to the dataset from powerbi.com.

Which two actions should you perform in powerbi.com? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point

- A. Enable service principal authentication for read-only admin APIs.
- B. Turn on Large dataset storage format.
- C. Connect the target workspace to an Azure Data Lake Storage Gen2 account.
- D. Enable XMLA read-write.

Answer: BD

Explanation:

Optimize datasets for write operations by enabling large models

When using the XMLA endpoint for dataset management with write operations, it's recommended you enable the dataset for large models. This reduces the overhead of write operations, which can make them considerably faster. For datasets over 1 GB in size (after compression), the difference can be significant. Tabular Editor supports Azure Analysis Services and Power BI Premium Datasets through XMLA read/write. Note: Tabular Editor - An open-source tool for

creating, maintaining, and managing tabular models using an intuitive, lightweight editor. A hierarchical view shows all objects in your tabular model. Objects are organized by display folders with support for multi-select property editing and DAX syntax highlighting. XMLA read-only is required for query operations. Read-write is required for metadata operations.
 Reference: <https://docs.microsoft.com/en-us/power-bi/enterprise/service-premium-connect-tools> <https://tabulareditor.github.io/>

NEW QUESTION 35

- (Exam Topic 3)

You have a group of data scientists who must create machine learning models and run periodic experiments on a large dataset. You need to recommend an Azure Synapse Analytics pool for the data scientists. The solution must minimize costs. Which type of pool should you recommend?

- A. a Data Explorer pool
- B. an Apache Spark pool
- C. a dedicated SQL pool
- D. a serverless SQL pool

Answer: B

Explanation:

In Azure Synapse, training machine learning models can be performed on the Apache Spark Pools with tools like PySpark/Python, Scala, or .NET.

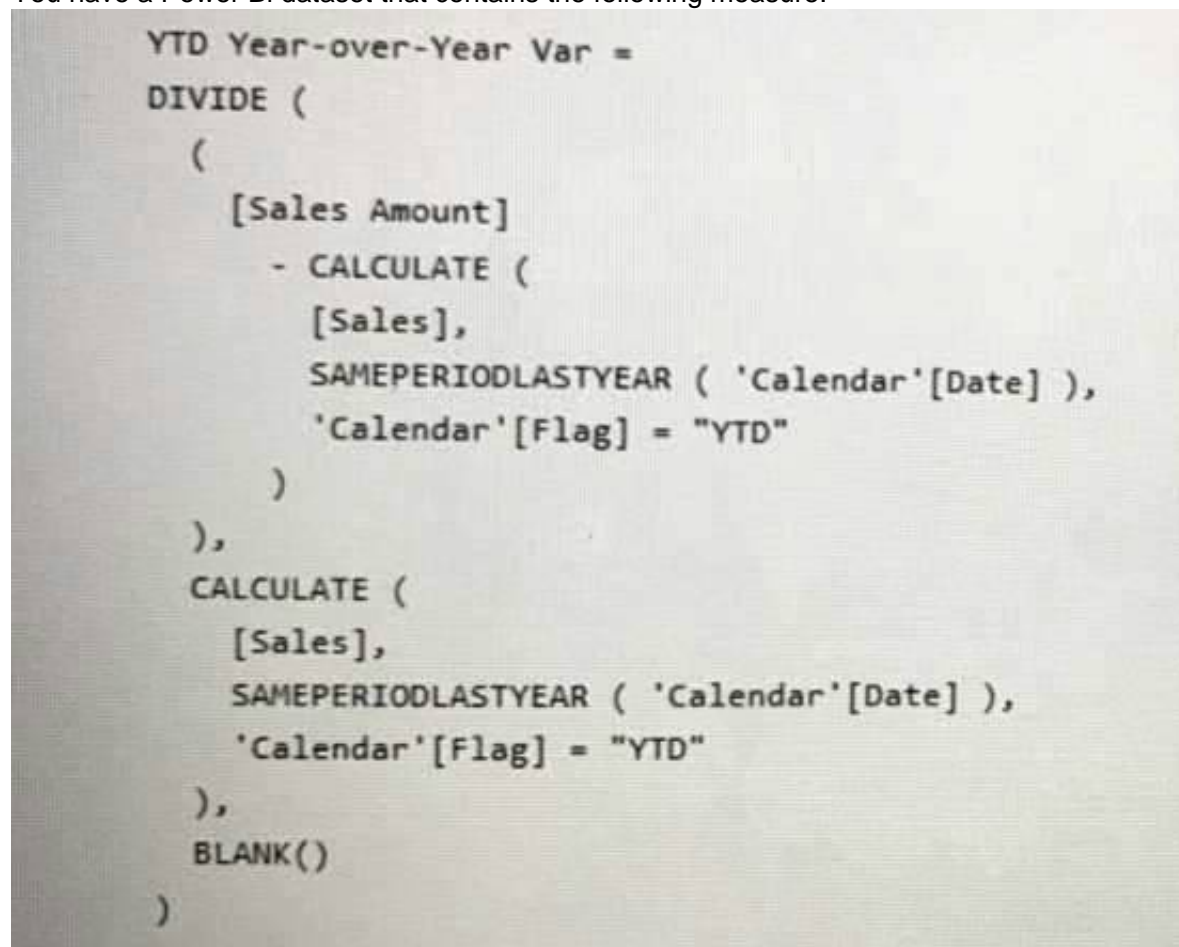
Reference:

<https://docs.microsoft.com/en-us/azure/synapse-analytics/machine-learning/what-is-machine-learning>

NEW QUESTION 40

- (Exam Topic 3)

You have a Power BI dataset that contains the following measure.



```
YTD Year-over-Year Var =
DIVIDE (
    (
        [Sales Amount]
        - CALCULATE (
            [Sales],
            SAMEPERIODLASTYEAR ( 'Calendar'[Date] ),
            'Calendar'[Flag] = "YTD"
        )
    ),
    CALCULATE (
        [Sales],
        SAMEPERIODLASTYEAR ( 'Calendar'[Date] ),
        'Calendar'[Flag] = "YTD"
    ),
    BLANK()
)
```

You need to improve the performance of the measure without affecting the logic or the results. What should you do?

- A. Replace both calculate functions by using a variable that contains the calculate function.
- B. Remove the alternative result of blank() from the divide function.
- C. Create a variable and replace the values for [sales Amount].
- D. Remove "calendar'[Flag] = "YTD" from the code.

Answer: A

NEW QUESTION 41

- (Exam Topic 3)

You are using a Python notebook in an Apache Spark pool in Azure Synapse Analytics. You need to present the data distribution statistics from a DataFrame in a tabular view. Which method should you invoke on the DataFrame?

- A. rollup
- B. cov
- C. explain
- D. describe

Answer: D

Explanation:

The aggregating statistic can be calculated for multiple columns at the same time with the describe function. Example:

titanic[["Age", "Fare"]].describe() Out[6]:

Age Fare

count 714.000000 891.000000
mean 29.699118 32.204208
std 14.526497 49.693429
min 0.420000 0.000000
25% 20.125000 7.910400
50% 28.000000 14.454200
75% 38.000000 31.000000
max 80.000000 512.329200

Reference: https://pandas.pydata.org/docs/getting_started/intro_tutorials/06_calculate_statistics.html

NEW QUESTION 43

- (Exam Topic 3)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a Power BI dataset named Dataset1.

In Dataset1, you currently have 50 measures that use the same time intelligence logic. You need to reduce the number of measures, while maintaining the current functionality. Solution: From DAX Studio, you write a query that uses grouping sets.

Does this meet the goal?

- A. Yes
- B. No

Answer: A

Explanation:

A grouping is a set of discrete values that are used to group measure fields. Reference: <https://docs.microsoft.com/en-us/power-bi/developer/visuals/capabilities>

NEW QUESTION 45

- (Exam Topic 3)

You have new security and governance protocols for Power BI reports and datasets. The new protocols must meet the following requirements.

- New reports can be embedded only in locations that require authentication.
- Live connections are permitted only for workspaces that use Premium capacity datasets.

Which three actions should you recommend performing in the Power BI Admin portal? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

- A. From Tenant settings, disable Allow XMLA endpoints and Analyze in Excel with on-premises datasets.
- B. From the Premium per user settings, set XMLA Endpoint to Off.
- C. From Embed Codes, delete all the codes.
- D. From Capacity settings, set XMLA Endpoint to Read Write.
- E. From Tenant settings, set Publish to web to Disable.

Answer: ADE

Explanation:

Reference: <https://docs.microsoft.com/en-us/power-bi/enterprise/service-premium-connect-tools> <https://powerbi.microsoft.com/en-us/blog/power-bi-february-service-update>

NEW QUESTION 47

- (Exam Topic 3)

You are planning a Power BI solution for a customer.

The customer will have 200 Power BI users. The customer identifies the following requirements:

- Ensure that all the users can create paginated reports.
- Ensure that the users can create reports containing AI visuals.
- Provide autoscaling of the CPU resources during heavy usage spikes.

You need to recommend a Power BI solution for the customer. The solution must minimize costs. What should you recommend?

- A. Power BI Premium per user
- B. a Power BI Premium per capacity
- C. Power BI Pro per user
- D. Power BI Report Server

Answer: A

Explanation:

Announcing Power BI Premium Per User general availability and autoscale preview for Gen2. Power BI Premium per user features and capabilities

* Pixel perfect paginated reports are available for operational reporting capabilities based on SSRS technology. Users can create highly formatted reports in various formats such as PDF and PPT, which are embeddable in applications and are designed to be printed or shared.

* Automated machine learning (AutoML) in Power BI enables business users to build ML models to predict outcomes without having to write any code.

* Etc. Note:

Power BI empowers every business user and business analyst to get amazing insights with AI infused experiences. With Power BI Premium, we enable business analysts to not only analyze and visualize their data, but to also build an end-to-end data platform through drag and drop experiences. Everything from ingesting and transforming data at scale, to building automated machine learning models, and analyzing massive volumes of data is now possible for our millions of business analysts.

Reference:

<https://powerbi.microsoft.com/nl-be/blog/announcing-power-bi-premium-per-user-general-availability-and-auto>

NEW QUESTION 51

- (Exam Topic 3)

You have a Power BI data model.

You need to refresh the data from the source every 15 minutes. What should you do first?

- A. Enable the XMLA endpoint.
- B. Define an incremental refresh policy.
- C. Change the storage mode of the dataset.
- D. Configure a scheduled refresh.

Answer: D

Explanation:

To get to the Scheduled refresh screen:

* 1. In the navigation pane, under Datasets, select More options (...) next to a dataset listed.

* 2. Select Schedule refresh.

Reference: <https://docs.microsoft.com/en-us/power-bi/connect-data/refresh-scheduled-refresh>

NEW QUESTION 54

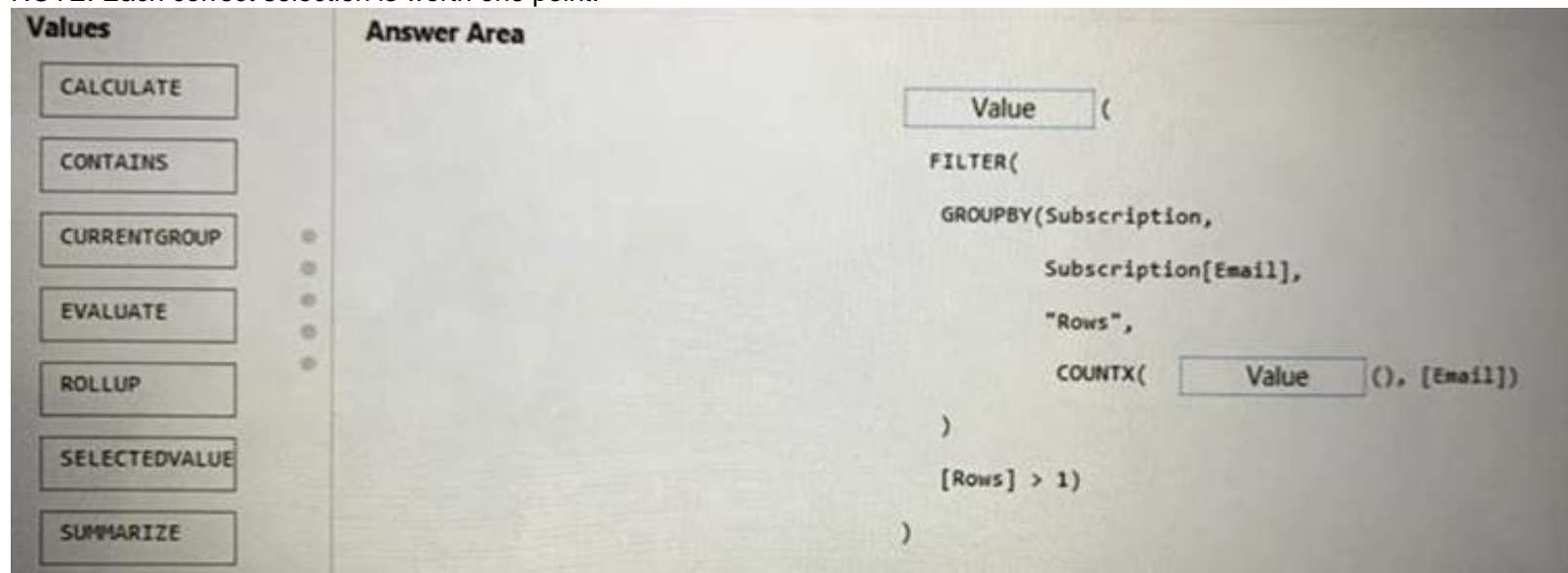
- (Exam Topic 3)

You are using DAX Studio to query an XMLA endpoint.

You need to identify the duplicate values in a column named Email in a table named Subscription.

How should you complete the DAX expression? To answer, drag the appropriate values to the targets. Each value may be used once, more than once. may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Box 1: CALCULATE

Box 2: CURRENTGROUP

CURRENTGROUP returns a set of rows from the table argument of a GROUPBY expression that belong to the current row of the GROUPBY result.

Remarks

This function can only be used within a GROUPBY expression.

This function takes no arguments and is only supported as the first argument to one of the following aggregation functions: AVERAGEX, COUNTAX, COUNTX, GEOMEANX, MAXX, MINX, PRODUCTX, STDEVX.S, STDEVX.P, SUMX, VARX.S, VARX.P.

Note: COUNTX counts the number of rows that contain a non-blank value or an expression that evaluates to a non-blank value, when evaluating an expression over a table.

Reference: <https://docs.microsoft.com/en-us/dax/currentgroup-function-dax>

NEW QUESTION 57

- (Exam Topic 3)

You are creating a Python visual in Power BI Desktop.

You need to retrieve the value of a column named Unit Price from a DataFrame. How should you reference the Unit Price column in the Python code?

- A. pandas.DataFrame('Unit Price')
- B. dataset['Unit Price']
- C. data = [Unit Price]
- D. ('Unit Price')

Answer: A

Explanation:

You can retrieve a column in a pandas DataFrame object by using the DataFrame object name, followed by the label of the column name in brackets.

So if the DataFrame object name is dataframe1 and the column we are trying to retrieve the 'X' column, then we retrieve the column using the statement, dataframe1['X'].

Here's a simple Python script that imports pandas and uses a data frame: import pandas as pd

```
data = [['Alex',10],['Bob',12],['Clarke',13]]
```

```
df = pd.DataFrame(data,columns=['Name','Age'],dtype=float) print (df)
```

When run, this script returns: Name Age

```
0 Alex 10.0
```

```
1 Bob 12.0
```

2 Clarke 13.0 Reference:

<http://www.learningaboutelectronics.com/Articles/How-to-retrieve-a-column-from-a-pandas-dataframe-object-i>

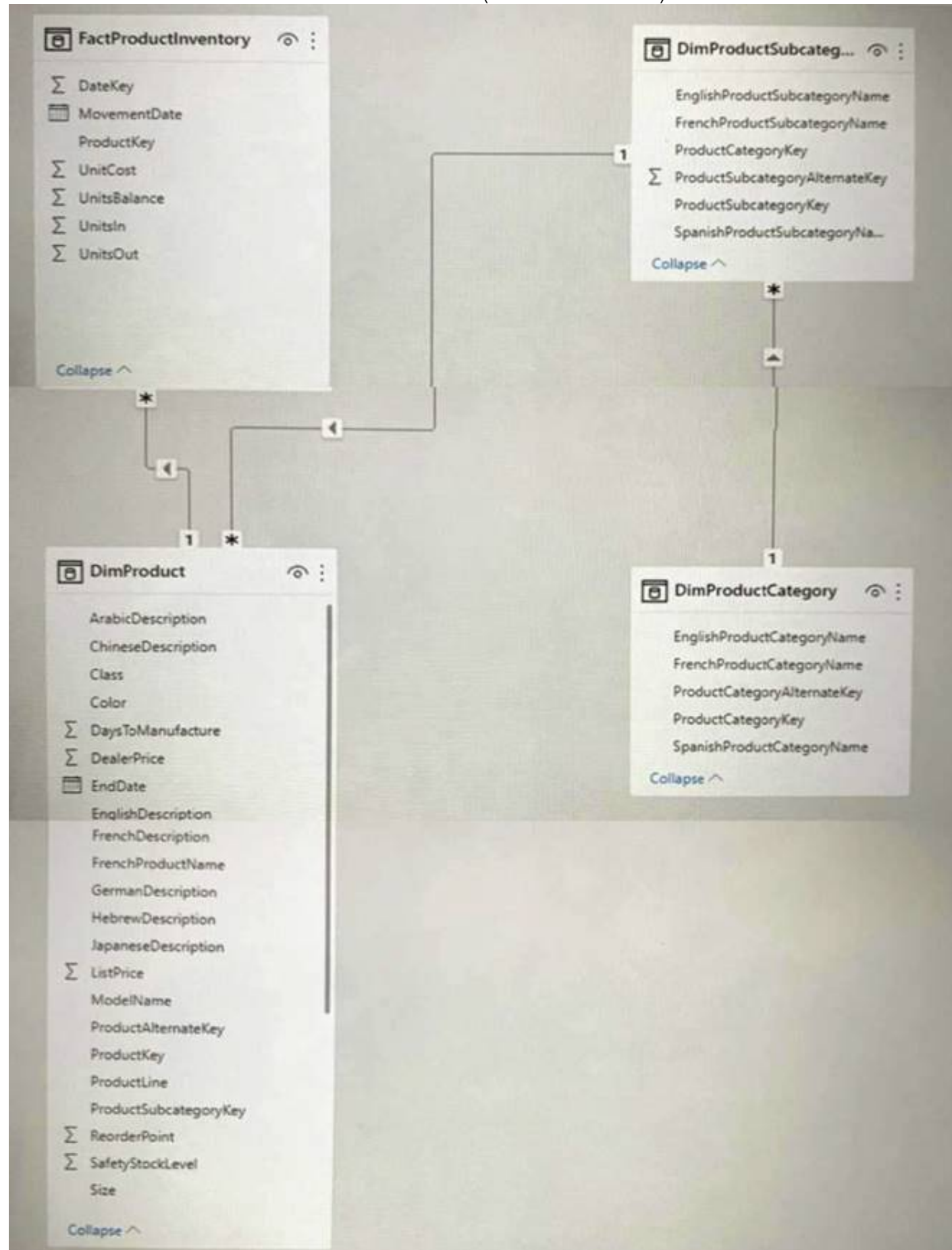
NEW QUESTION 59

- (Exam Topic 3)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have the Power BI data model shown in the exhibit. (Click the Exhibit tab.)



Users indicate that when they build reports from the data model, the reports take a long time to load. You need to recommend a solution to reduce the load times of the reports.

Solution: You recommend creating a perspective that contains the commonly used fields. Does this meet the goal?

- A. Yes
- B. No

Answer: B

Explanation:

Instead denormalize For Performance.

Even though it might mean storing a bit of redundant data, schema denormalization can sometimes provide better query performance. The only question then becomes is the extra space used worth the performance benefit.

Reference: <https://www.mssqltips.com/sqlservertutorial/3211/denormalize-for-performance/>

NEW QUESTION 61

- (Exam Topic 3)

You have a Power BI dataset that uses DirectQuery against an Azure SQL database.

Multiple reports use the dataset.

A database administrator reports that too many queries are being sent from Power BI to the database. You need to reduce the number of queries sent to the database. The solution must meet the following requirements:

- DirectQuery must continue to be used.
- Visual interactions in all the reports must remain as they are configured currently.
- Consumers of the reports must only be allowed to apply filters from the Filter pane. Which two settings should you select? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

- A. Disabling cross highlighting/filtering by default
- B. Add a single Apply button to the filter pane to apply changes at once
- C. Add an Apply button to each slicer to apply changes when you're ready
- D. Add Apply buttons to all basic filters to apply changes when you're ready
- E. Ignore the Privacy Levels and potentially improve performance

Answer: BC

Explanation:

Reduce queries

Reduce the number of queries sent by Power BI using the Query reduction settings. For slicers, select the “Add an Apply button to each slicer to apply changes when you’re ready” option. For filters, select “Add a single Apply button to the filter pane to apply changes at once (preview).”

Reference: <https://maqsoftware.com/insights/power-bi-best-practices>

NEW QUESTION 65

- (Exam Topic 3)

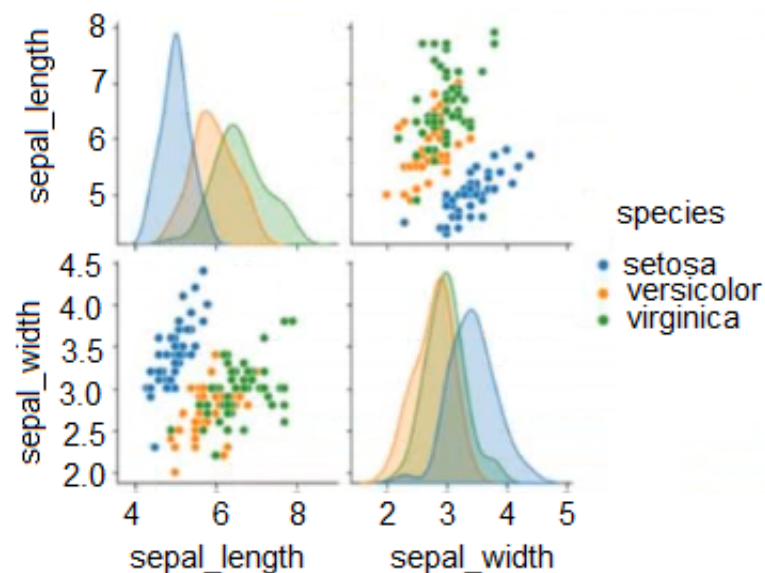
You are using an Azure Synapse notebook to create a Python visual. You run the following code cell to import a dataset named Iris.

```
iris = sns.load_dataset("iris")
iris.head()
```

A sample of the data is shown in the following table.

index	sepal_length	sepal_width	species
0	5.1	3.5	setosa
2	4.9	3	setosa
145	6.7	3	virginica
156	6.3	2.5	virginica

You need to create the visual shown in the exhibit. (Click the Exhibit tab.)



How should you complete the Python code? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Answer Area

```
sns. boxplot (iris, hue= 'sepal_length', height=2.5)

plt.show()
```

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

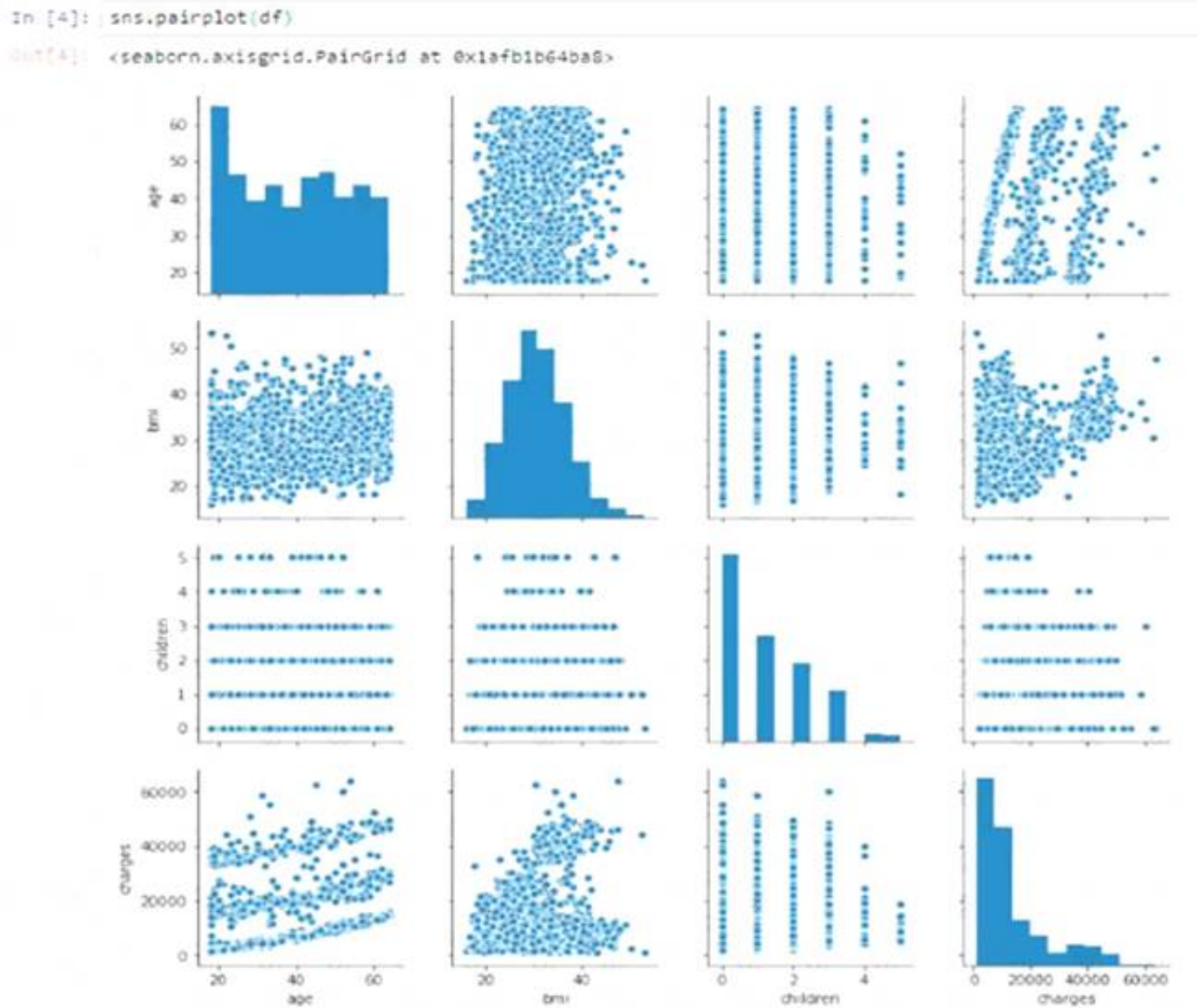
Box 1: pairplot

A pairs plot allows us to see both distribution of single variables and relationships between two variables. Pair plots are a great method to identify trends for follow-up analysis and, fortunately, are easily implemented in Python!

Example, let's plot data using pairplot:

From the picture below, we can observe the variations in each plot. The plots are in matrix format where the row name represents x axis and column name

represents the y axis. The main-diagonal subplots are the univariate histograms (distributions) for each attribute. A picture containing diagram Description automatically generated



Box 2: sepal_width
sepal_width is displayed with a height of 2.5 (between 2.0 and 4.5).
Reference: <https://medium.com/analytics-vidhya/pairplot-visualization-16325cd725e6>

NEW QUESTION 67

- (Exam Topic 3)
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You are using an Azure Synapse Analytics serverless SQL pool to query a collection of Apache Parquet files by using automatic schema inference. The files contain more than 40 million rows of UTF-8-encoded business names, survey names, and participant counts. The database is configured to use the default collation.
The queries use open row set and infer the schema shown in the following table.

name	system_type_name	max_length
businessName	varchar(8000)	8000
surveyName	varchar(8000)	8000
participants	int	4

You need to recommend changes to the queries to reduce I/O reads and tempdb usage.
Solution: You recommend defining an external table for the Parquet files and updating the query to use the table
Does this meet the goal?

- A. Yes
- B. No

Answer: B

NEW QUESTION 68

- (Exam Topic 3)
You have a dataset that contains a table named UserPermissions. UserPermissions contains the following data.

User	Region
CONTOSO\User1	1
CONTOSO\User2	2
CONTOSO\User3	1
CONTOSO\User4	3
CONTOSO\User4	5

You plan to create a security role named User Security for the dataset. You need to filter the dataset based on the current users. What should you include in the DAX expression?

- A. [UserPermissions] - USERNAME()
- B. [UserPermissions] - USERPRINCIPALNAME()
- C. [User] = USERPRINCIPALNAME()
- D. [User] = USERNAME()
- E. [User] = USEROBJECTID()

Answer: D

Explanation:

USERNAME() returns the domain name and username from the credentials given to the system at connection time.

It should be compared to column name of User, which in DAX is expressed through [User]. Reference: <https://docs.microsoft.com/en-us/dax/username-function-dax>

NEW QUESTION 70

- (Exam Topic 3)

You have a Power BI dataset named Dataset1 that uses DirectQuery against an Azure SQL database named DB1. DB1 is a transactional database in the third normal form.

You need to recommend a solution to minimize how long it takes to execute the query. The solution must maintain the current functionality. What should you include in the recommendation?

- A. Create calculated columns in Dataset1.
- B. Remove the relationships from Dataset1.
- C. Normalize the tables in DB1.
- D. Denormalize the tables in DB1.

Answer: D

Explanation:

Denormalize to improve query performance.

Note: Normalization prevents data duplications, preserves disk space, and improves the performance of the disk I/O operations. The downside of the normalization is that the queries based on these normalized tables require more table joins.

Schema denormalization (i.e. consolidation of some dimension tables) for such databases can significantly reduce costs of the analytical queries and improve the performance.

Reference:

<https://www.mssqltips.com/sqlservertip/7114/denormalization-dimensions-synapse-mapping-data-flow/>

NEW QUESTION 71

- (Exam Topic 2)

You need to recommend a solution to resolve the query issue of the serverless SQL pool. The solution must minimize impact on the users.

What should you in the recommendation?

- A. Update the statistics for the serverless SQL pool.
- B. Move the data from the serverless SQL pool to a dedicated Apache Spark pool.
- C. Execute the sp_sec_process_daca_limic stored procedure for the serverless SQL pool.
- D. Move the data from the serverless SQL pool to a dedicated SQL pool.

Answer: D

Explanation:

Users indicate that queries against the serverless SQL pool fail occasionally because the size of tempdb has been exceeded.

In the dedicated SQL pool resource, temporary tables offer a performance benefit because their results are written to local rather than remote storage.

Temporary tables in serverless SQL pool.

Temporary tables in serverless SQL pool are supported but their usage is limited. They can't be used in queries which target files.

For example, you can't join a temporary table with data from files in storage. The number of temporary tables is limited to 100, and their total size is limited to 100 MB.

Reference: <https://docs.microsoft.com/en-us/azure/synapse-analytics/sql/develop-tables-temporary>

NEW QUESTION 76

- (Exam Topic 1)

How should you configure the Power BI dataset refresh for the dbo.SalesTransactions table?

- A. an incremental refresh of Product where the ModifiedDate value is during the last three days.
- B. an incremental refresh of dbo.SalesTransactions where the SalesDate value is during the last three days.
- C. a full refresh of all the tables
- D. an incremental refresh of dbo.SalesTransactions where the SalesDate value is during the last hour.

Answer: B

Explanation:

The sales data in SQLDW is updated every 30 minutes. Records in dbo.SalesTransactions are updated in SQLDW up to three days after being created. The records do NOT change after three days.

NEW QUESTION 81

- (Exam Topic 1)

You need to configure the Sales Analytics workspace to meet the ad hoc reporting requirements. What should you do?

- A. Grant the sales managers the Build permission for the existing Power BI datasets.
- B. Grant the sales managers admin access to the existing Power BI workspace.
- C. Create a deployment pipeline and grant the sales managers access to the pipeline.
- D. Create a PBIT file and distribute the file to the sales managers.

Answer: D

Explanation:

Allow sales managers to perform ad hoc sales reporting with minimal effort

Power BI report templates contain the following information from the report from which they were generated: Report pages, visuals, and other visual elements

The data model definition, including the schema, relationships, measures, and other model definition items All query definitions, such as queries, Query

Parameters, and other query elements

What is not included in templates is the report's data.

Report templates use the file extension .PBIT (compare to Power BI Desktop reports, which use the .PBIX extension).

Note: With Power BI Desktop, you can create compelling reports that share insights across your entire organization. With Power BI Desktop templates, you can streamline your work by creating a report template, based on an existing template, which you or other users in your organization can use as a starting point for a new report's layout, data model, and queries. Templates in Power BI Desktop help you jump-start and standardize report creation.

Reference: <https://docs.microsoft.com/en-us/power-bi/create-reports/desktop-templates>

NEW QUESTION 83

- (Exam Topic 1)

You need to recommend a solution to ensure that sensitivity labels are applied. The solution must minimize administrative effort.

Which three actions should you include in the recommendation? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. From the Power BI Admin portal, set Allow users to apply sensitivity labels for Power BI content to Enabled.
- B. From the Power BI Admin portal, set Apply sensitivity labels from data sources to their data in Power BI to Enabled.
- C. In SQLD
- D. apply sensitivity labels to the columns in the Customer and CustomersWithProductScore tables.
- E. In the Power BI datasets, apply sensitivity labels to the columns in the Customer and CustomersWithProductScore tables.
- F. From the Power BI Admin portal, set Make certified content discoverable to Enabled.

Answer: ADE

Explanation:

A Synapse Analytics dedicated SQL pool is named SQLDW.

Customer contact data in SQLDW and the Power BI dataset must be labeled as Sensitive. Records must be kept of any users that use the sensitive data.

A (not B): Enable sensitivity labels

Sensitivity labels must be enabled on the tenant before they can be used in both the service and in Desktop.

To enable sensitivity labels on the tenant, go to the Power BI Admin portal, open the Tenant settings pane, and find the Information protection section.

In the Information Protection section, perform the following steps:

➤ Open Allow users to apply sensitivity labels for Power BI content.

➤ Enable the toggle.

D (not C): When data protection is enabled on your tenant, sensitivity labels appear in the sensitivity column in the list view of dashboards, reports, datasets, and dataflows.

E: Power BI Tenant Discovery Setting include Make certified content discoverable.

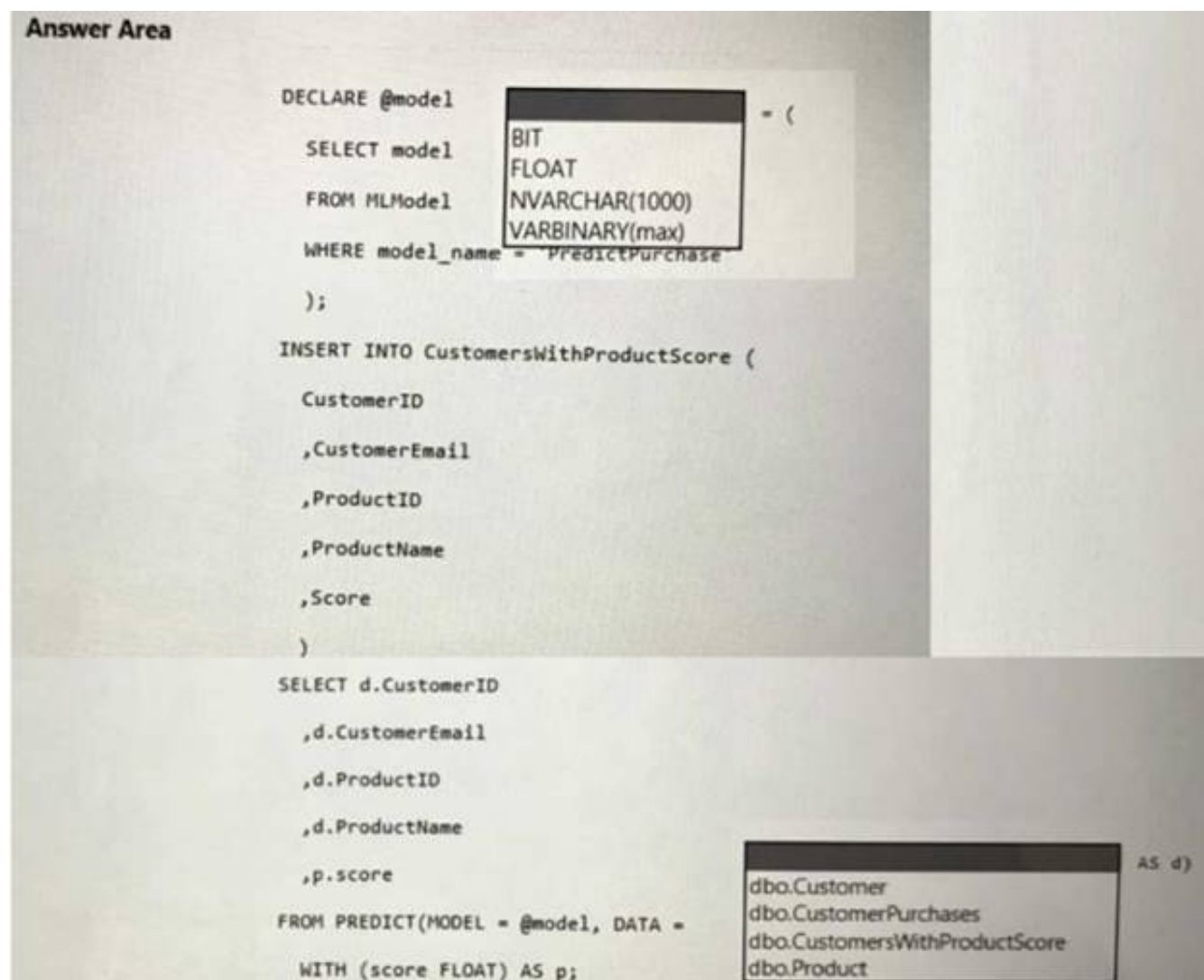
Reference: <https://docs.microsoft.com/en-us/power-bi/enterprise/service-security-enable-data-sensitivity-labels> <https://docs.microsoft.com/en-us/power-bi/enterprise/service-security-apply-data-sensitivity-labels> <https://support.nhs.net/knowledge-base/power-bi-guidance/>

NEW QUESTION 87

- (Exam Topic 1)

You need to populate the CustomersWithProductScore table.

How should you complete the stored procedure? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Box 1: FLOAT

Identify which customers should receive promotional emails based on their likelihood of purchasing promoted products.

FLOT is used in the last statement of the code: WITH (score FLOAT) as p; From syntax: MODEL

The MODEL parameter is used to specify the model used for scoring or prediction. The model is specified as a variable or a literal or a scalar expression.

Box 2: dbo.CustomerWithProductScore

Identify which customers should receive promotional emails based on their likelihood of purchasing promoted products.

Only table CustomerWithProductScore has the required filed score.

From the syntax: DATA

The DATA parameter is used to specify the data used for scoring or prediction. Data is specified in the form of a table source in the query. Table source can be a table, table alias, CTE alias, view, or table-valued function.

Reference: <https://docs.microsoft.com/en-us/sql/t-sql/queries/predict-transact-sql>

NEW QUESTION 90

- (Exam Topic 1)

What should you configure in the deployment pipeline?

- A. a backward deployment
- B. a selective deployment
- C. auto-binding
- D. a data source rule

Answer: D

Explanation:

Development Process Requirements

Litware identifies the following development process requirements:

SQLDW and datalake1 will act as the development environment. Once feature development is complete, all entities in synapseworkspace1 will be promoted to a test workspace, and then to a production workspace.

Power BI content must be deployed to test and production by using deployment pipelines. Create deployment rules

When working in a deployment pipeline, different stages may have different configurations. For example, each stage can have different databases or different query parameters. The development stage might query sample data from the database, while the test and production stages query the entire database.

When you deploy content between pipeline stages, configuring deployment rules enables you to allow changes to content, while keeping some settings intact. For example, if you want a dataset in a production stage to point to a production database, you can define a rule for this. The rule is defined in the production stage, under the appropriate dataset. Once the rule is defined, content deployed from test to production, will inherit the value as defined in the deployment rule, and will always apply as long as the rule is unchanged and valid.

You can configure data source rules and parameter rules.

Incorrect:

Not B: if you already have a steady production environment, you can deploy it backward (to Test or Dev, based on your need) and set up the pipeline. The feature is not limited to any sequential orders.

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/deployment-pipelines-get-started#step-4---create-deplo>

NEW QUESTION 94

.....

Relate Links

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